

(54) OPTICAL INSPECTING DEVICE

(11) 59-160734 (A) (43) 11.9.1984 (19) JP

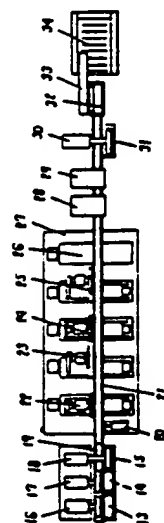
(21) Appl. No. 58-35401 (22) 3.3.1983

(71) MATSUSHITA DENKI SANGYO K.K. (72) MASAYUKI TSURUHA(1)

(51) Int. Cl. G01M11.00

**PURPOSE:** To increase productivity and to assure the stability in measurement accuracy by performing automatic supply, automatic focusing and automatic discharging according to the result of automatic decision of defective and non-defective of a plate-shaped

**CONSTITUTION:** Lenses discharged from lens supplying heads 16~18 via one of stockers 13~15 are fed via a conveying part 19 onto an inspection table 27. The result of measuring the lens width in a size measuring part 20 is successively shifted to respective stations. When the lens arrives in front of inspecting heads 22~25 for resolution and an inspecting head 26 for quantity of light, an operator adjust preliminarily a pattern disc and the surface of a photodetecting tube to the distance conforming to the focal length specific to the lens by turning a handle, then a pulse motor rotates at a specified angle in accordance with the result of the size measurement and an intermediate table moves by a specified size, by which the self-centering operation is automatically accomplished. The conveyance of the lens is started at the same instant, and the rotation of the pattern disc and the inspection of the lens are performed automatically. The light transmitted through the lens is converted to an electrical signal by the photodetecting tube and the data on the resolution and the quantity of light is obtd.



**(54) OPTICAL INSPECTING APPARATUS FOR LENS**

(11) 59-108934 (A) (43) 23.6.1984 (19) JP

(21) Appl. No. 57-219433 (22) 14.12.1982

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(51) Int. Cl. G01M11/00, G01B11/00

**PURPOSE:** To enhance productivity to a large extent and to improve inspection accuracy by automatic focusing, by providing a lens feeding part, an optical inspection part, a lens width measuring part, an automatic centering part, and a lens taking out part, thereby fully automating the lens inspection.

**CONSTITUTION:** Lenses 22 are mounted on a belt conveyor 29 by lens mounting devices 23, 24, and 25 and sent to a lens inspecting part 60. The width of the lens is measured by a lens width measuring device 34. Based on the measured result, inspections are performed by longitudinal short pitch resolution inspecting part 36, a lateral short pitch resolution inspecting part 37, a longitudinal long pitch resolution inspecting part 38, a lateral long pitch resolution inspecting part 39, and an amount of light inspecting part 40. The pattern surfaces of the lenses are sequentially and automatically aligned with the positions of the surfaces of light receiving tubes 51, 52, 53, 54, and 55 by automatic centering tables 56, 57, 58, 59, and 50. Under the state automatic focusing is performed, each inspection is performed. The lens, whose inspection is finished, is sent to a lens taking out part 72.

